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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/722,886  
Filing Date: 11/26/03  
Appellant(s): Laney et al.

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Chris P. Konkol  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed February 27, 2008 appealing from the Office action mailed July 12, 2007.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The following are the related appeals, interferences, and judicial proceedings known to the examiner which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal:

The appeal of commonly assigned U.S.S.N. 10/722,887 to Laney et al., which was appealed on March 12, 2008.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

## **(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3-15, 39 and 40 stand finally rejected under 35 U.S.C. 102(b) as being anticipated by Morita et al. (EP 510998). Morita et al. disclose a porous film that is oriented in at least one direction, is breathable, and is produced from a polylactic acid base resin (see the abstract). The lactic acid can be about 70% by mole or more of L-lactide [p.3, line 20-25]. The polylactic acid based composition can be blended with a plasticizer and a filler of particle size 0.3 to 4 microns [p. 4, lines 43-58].

Filler may be calcium carbonate, barium sulfate, zinc oxide, etc. [p.4, lines 51-56]. Filler comprises 40 to 250 parts by weight per 100 parts resin composition [p.5, lines 10-15]. This filler is a void initiator because the amount of filler is directly related to the porosity and percentage of open cells [p.5., lines 10-15].

The formation process includes stretching the film 1.1 to 10 times in at least one direction. The reference also states that stretching can be carried out biaxially [p. 5, lines 27-30]. Thicknesses of films formed by the material vary with application generally in the range of 10 to 300 microns [p. 5, lines 34-35]. Because there is significant overlap in the particle size range, weight percentages of filler (which serve as void initiators), filler materials and polymer composition, and because the stretching ratios of

the reference encompass those instantly claimed, the instantly claimed properties inherently result from practice of the prior art within its disclosed ranges. These properties include, the ink adsorption rate, the microvoid volume, the absorption capacity, volume of void initiator, and area ratio between the stretched and unstretched film. The film is highly permeable to moisture and may be used in packaging materials [p. 2, lines 4-8]. The film may be an uppermost ink-receiving layer because only one layer is positively recited and no other layer is required to be present according to the instant claims. The film will inherently be ink-receiving based upon its composition and structure.

The disclosure of the reference is not limited to its examples. The teachings of the entire reference must be considered. These teachings include draw ratios and loadings as high as those instantly claimed. The term "ink jet recording element" fails to lend any structure to the medium. Both the instant claims and the applied reference are directed to a polylactic-acid-based film. There is no claimed structure to distinguish appellants' film from that of the prior art. The film of the prior art when stretched at the same ratio as appellants' film (and within the range disclosed by the reference) should inherently meet the functional language of claim 1. There are no distinguishable differences in the processes of forming the films and appellants haven't pointed out any differences in the formation methods that account for differences in film structure.

2. Claims 1, 3-15, 21, 39 and 40 stand finally rejected under 35 U.S.C. 103(a) as being unpatentable over Morita et al. (EP 510,988). The reference is primarily relied upon as set forth above. Since the reference discloses ranges and materials, it would have been obvious to one of ordinary skill in the art to form a film within these ranges

with desired size and quantity of microvoids. That the properties will vary within the disclosed ranges would have been expected by one of ordinary skill in the art. The reference does not specifically recite inclusion of other polymeric materials, but it does disclose inclusion of colorants, reinforcements and other types of fillers that do not impair the object of the invention [p. 5, lines 34-35]. Such materials would include conventional polymeric reinforcement and filler materials that would result in a stronger film or one that was less expensive to produce. These modifications would have been obvious to one of ordinary skill in the art in order to achieve either of the results set forth above.

#### **(10) Response to Argument**

##### **Rejection under 35 U.S.C. 102(b)**

In arguing that "an inkjet recording element clearly is not the same thing as a diaper or other such leak proof sanitary material," appellants overlook the fact that their claims read on a porous film in the absence of any other structure. The broadest disclosure of Morita et al. is to such a porous film, not a diaper or leak proof sanitary material. Appellants have suggested and the examiner knows of no structural distinctions between a porous film and an inkjet recording element. In addition, it should be considered that the outer film of diapers is usually printed with some type of design so that the outer surface of a diaper is in fact a recording element. The examiner has not argued that a diaper would be run through an inkjet printer, but a film certainly would be. The term "inkjet recording element" provides and intended use while "ink absorption rate" and "ink-receiving layer" define necessary properties of the film. As stated in the rejections, these properties will result by practice of the method of formation of the film

disclosed by the reference within the ranges of variables disclosed therein.

Appellants argue that the films of the reference examples will not have the properties of the claimed invention. The examiner is relying upon the full disclosure of the reference. The examiner maintains that the instantly claimed properties result from practice of the prior art method. In response, Appellants have failed to point to a single claimed property that would not result from practice of the prior art invention within the ranges disclosed therein. Contrary to appellants' assertions, one of ordinary skill in the art would not have difficulty determining results of varying materials and stretching ratios within disclosed ranges of the reference. The reference explicitly discloses the result of varying the size and amount of filler (i.e. void initiator) at page 5, lines 3-14. Results of stretching too much or too little are disclosed at page 5, lines 27-30. Appellants' stretched film falls within the ranges disclosed by the reference.

Appellants also argue that the examiner has not identified the basis of the rejection by identifying a single disclosed product in the reference as anticipating appellants' invention. While appellants indicate that this has kept them from identifying differences with the applied reference, Mr. Laney, one of the inventors, has nevertheless supplied his opinion in Appellant's Declaration of May 9, 2006. In that Declaration, Mr. Laney states "[h]aving strived to create such structures for some time, I have found that only at inorganic loadings above 60% by weight and with biaxial stretch ratios of greater than 3.0 X 3.0) can significantly absorptive films be attained with polylactic acid." The reference discloses inorganic loadings of over 70 wt % (250 pts by wt/ 350 pts by wt total composition) and stretching of up to 10 times in "at least one direction." See page 5, lines 10-14 and lines 27-30. Therefore, the reference discloses

exactly what appellant says is required to form "significantly absorptive films."

The Examiner regrets the erroneous use of the language "obvious ...to modify" in responding to applicants' arguments in the final rejection. The rejection as set forth in the non-final rejection does not use this language and is complete and proper. In fact, there is no need to modify the disclosure of the reference to prevent breakage since determining stretching ratios within the disclosed ranges of the reference avoids breakage. The reference discloses breakage as a potential problem from over stretching and one of ordinary skill in the art would avoid breakage by following the disclosures of the reference.

It is noted that appellants state that claims 4-15 will stand or fall with claim 1.

Appellants argue that the film of the reference will not meet the limitation to claim 3 to total calculated absorbent capacity. The Examiner once again refers to the standard set forth by Mr. Laney for "significantly absorptive films." Due to the loadings and stretching ratios disclosed by the reference, there are films produced within the ranges of the reference that will inherently have the claimed absorbent capacity. The examiner disagrees that such properties would always be undesirable to Morita et al. At page 2, line 4, the reference states that a desired property is high moisture permeability.

With respect to claims 39 and 40, appellants argue that the examiner has not pointed to disclosures related to the presence of the void initiator at an amount of 30 to 50 per cent by volume and draw ratios of 2 to 5 times. Contrary to appellants' assertions, the examiner has pointed to the disclosure of the specific fillers (many of which are disclosed for use by appellants in their specification) and the average particle size of filler at the bottom of page 4 of the reference as well as the parts by weight of

filler. These disclosures provide enough information to determine that the amount disclosed by weight when converted to a volume percentage overlaps with that instantly claimed. In addition, the draw ratios are set forth to be 1.1 to 10 times which includes appellant's range of 2 to 5 times.

With respect to claims 41 and 42, Appellants argue that the reference discloses stretching of 1.1 to 10 times. However, the reference discloses that degree of stretching "at least to one direction of axis." [See p. 5, lines 27-30]. Since the stretching can be biaxial it would lead to a difference in area ratio that is much greater and that encompasses appellants' claimed area ratios.

#### **Rejection under 35 U.S.C. 103(a)**

With respect to the rejection under 35 U.S.C. 103(a), it is clear that the reference discloses films of polylactic acid that would be suitable to serve different functions. These films will vary predictably in porosity, moisture permeability, and breathability based upon the type, size, and quantity of filler (void initiator), as well as on selection of stretching ratios from the range disclosed by the reference. It would have been obvious to one of ordinary skill in the art to control the properties of a film by selecting values within the ranges disclosed by the reference. Results obtained by varying the values set forth above would have been predictable using the guidance of the reference. Obtaining a film of higher porosity requires no more than routine experimentation once provided with the Morita et al. reference. There are many known uses for films of higher porosity. Sanitary materials include layers that are water permeable, water absorptive and waterproof. Therefore, films having a variety of properties are disclosed by and would have been obvious from the reference. It is unnecessary to identify the use of



"inkjet recording element" to be motivated to make a more absorbent film within the ranges disclosed by the reference.

By their reliance on case law at the bottom of page 8 and the top of page 9 of their Brief, appellants argue that one of ordinary skill in the art of film making would not recognize or predict an increase in void volume and absorption rate for aqueous fluids when a porous film is produced having more voids or larger voids. Contrary to appellants' assertions, the reference teaches that insufficient filler (quantity or size of particles) leads to insufficient porosity and a low percentage of open cells and that insufficient stretching leads to unsatisfactory porosity. Thus, unlike the properties referred to in the cited case law, the inherently resulting properties in the instant case are entirely recognizable results.

Appellants next argue that Morita et al. do not obtain an open-celled film (see p. 9 of the Brief). However, Morita et al. disclose their film to contain open cells (see for example page 5, lines 10-14). In addition, appellants erroneously argue that biaxial stretching isn't taught by the reference. Appellants also argue that the materials made by Morita et al. "would not be useful in an inkjet recording element." This is proved incorrect by comparing Appellant's Declaration with the amount of filler and the stretch ratios of the reference.

With respect to claims 3 and 39-42, appellants' arguments are based primarily on the examples rather than on the overall teachings of the reference. In addition, reasons applicable to the rejection under 35 U.S.C. 102(b) are also applicable here.

#### **(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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May 9, 2008